

**Boyce & Bynum**  
Pathology Laboratories

# Packaging & Shipping Laboratory Specimens Guide



*Information in this brochure is current as of March 2015. All content is subject to change. Contact BBPL Client Services at 800-786-4602 for up-to-date information and assistance.*

# Facility Checklist

- 1. Facility Staff is Trained and Certified to Package and Ship Specimens
- 2. Hazmat / Dangerous Goods Certifications on file
- 3. Dangerous Goods Shipping Documents
- 4. Specimen Supplies — Poly Seal Bag, Specimen Bags, Manifest or Requisitions
- 5. Packaging Supplies — Box, Labels, Air Waybill (if transported by air)
- 6. Courier Contact Information \_\_\_\_\_
- 7. Destination Information \_\_\_\_\_



- Please stop here if you have not met the criteria above.
- Call BBPL Client Services for more information; 800-786-4602

This brochure is provided to assist you in compliance with the regulations concerning the shipping or transport of specimens by air or by ground for laboratory testing.

While we believe that the procedures and practices in the brochure satisfy the requirements of DOT, IATA, and ICAO as published, your facility is responsible for assuring that appropriate packing instructions are adhered to as required by federal law and air transport association standards.

BBPL recommends that each facility make an effort to review applicable regulations and base their decisions accordingly.

Use of this brochure does not substitute for approved, certified training if required by regulation. BBPL is not certified to provide this type of training.

# Specimen Preparation

## SPECIMEN LABELING

All specimens submitted to BBPL for testing must be appropriately labeled. This requirement assures positive identification and optimum integrity of patient specimens from the time of collection until testing is completed and results reported. Clients will be notified of inappropriately labeled specimens.

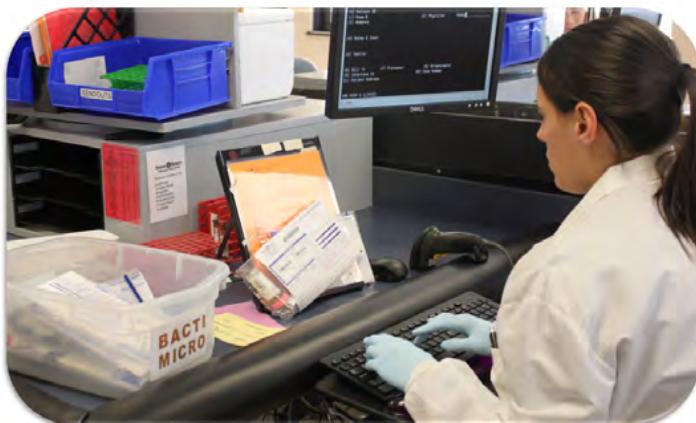
The College of American Pathologists (CAP) Laboratory General Checklist requires that all primary specimen containers must be labeled with two identifiers at the time of collection to provide unique identification. Examples of acceptable identifiers include, but are not limited to, patient name, date of birth, hospital number, Social Security number, requisition number, accession number, and unique random number (CAP GEN.40491). The Joint Commission National Patient Safety Goals requires two ways to identify the patient (Goal 1, NPSG.01.01.01).

## BBPL STANDARD TRANSPORT TUBES

BBPL encourages the use of BBPL standard transport tubes for specimen submission. These containers have been evaluated by BBPL and are not known to cause analytical interference in the associated assays. BBPL standard transport tubes are also available in an amber color, required for light-sensitive tests. All BBPL standard transport tubes meet DOT 49 CFR 178.605 and IATA DGR 6.3.5 requirements for the transport of specimens.

### Please note the following:

- The tube has graduated markings.
- When submitting specimens, it is critical to leave an air space at the top of the tube to allow for expansion and prevent leakage.
- A separate tube must be submitted for each panel or test ordered on the same patient, especially for tests requiring frozen specimens.
- The tube's threaded cap provides a leakproof seal when screwed on properly. It is not a push-on cap.
- The label must be adhered as pictured below; hold the lid of the tube in your left hand and place the label lengthwise.
- Do not use Parafilm laboratory sealing film.
- BBPL's standard transport tubes are not sterile; do not use them for infectious disease tests requiring sterile transport.
- All labels should be in compliance with Clinical and Laboratory Standards Institute (CLSI) guidelines (Auto 12-1A).



BBPL standard transport tube



Amber-colored BBPL standard transport tube

# Specimen Preparation

## SPECIMEN REJECTION/TEST CANCELLATION

Containers may be accepted, but should be avoided.

- Glass tubes for refrigerated and ambient (room temperature) specimens
- Tubes from an automated aliquot system with pop-top type of cap
- Syringes (where required) should be enclosed in a specimen transport bag and placed in a small cardboard box or plastic container with a tight fitting lid to protect the plunger from accidentally pushing. **No needles should be attached.**
- Client-specific containers

**Unacceptable containers and/or conditions:**

- Glass tubes from frozen specimens, unless otherwise specified
- Polystyrene tubes
- Leaking specimens
- Syringes with needles attached
- Transport tubes secured with Parafilm
- Specimens received in expired transport containers or media

## SPECIMEN TRANSPORTATION CONTAINER 95KPA VALIDATION

All specimen containers supplied by BBPL for specimen transport withstand stringent testing to ensure they are well-constructed and have secure lids that prevent leakage during transport. This validation complies with regulations and meets the shipping requirements of the Department of Transportation's 49 CFR 178.605, Dangerous Goods Regulations and IATA DGR 6.3.5.

Clients are responsible for specimens submitted in containers not supplied by BBPL. Documentation on containers not provided by BBPL should be obtained directly from the manufacturer or an outside testing facility.

## SPECIMEN TRANSPORT BAGS

**All specimens must be in leakproof primary containers (transport tubes) and must be placed in leakproof secondary containers (specimen transport bags).** Couriers are prohibited from picking up specimens that are leaking or are not in secondary containers (e.g., BBPL specimen transport bags). Clients are responsible for packing specimens in specimen transport bags. Fragile specimens must be individually wrapped in a specimen transport bag or with absorbent material.

**Caution: Be sure to tighten caps on tubes and close bags securely.**

**Note:** If submitting more than one specimen per patient, and if specimens need to be stored and transported at different temperatures, use separate bags and test request forms or packing lists for each temperature type.

# Specimen Shipping

Packing methods and shipping guidelines are important in assuring quality patient care and maintaining result integrity by providing for and achieving optimum environmental control during transit. In addition, for the safety of others, it is imperative that specimens be classified for sorting into respective shipping groups.

BBPL recognizes the importance of specimen integrity. This publication has been created to standardize the methods and procedures in which all specimens are packaged and transported to their final destination. The temperature at which specimens are held and/or transported is a critical component of these requirements and different packaging will be needed for frozen, refrigerated and ambient temperatures. Additional steps may be needed to be taken in seasons/locations where extremes of heat or cold could affect specimen integrity.

Basic infection control procedures must also be followed, including adherence to universal precautions protocols. OSHA requires all body fluids be considered potentially infectious by those who handle them and that appropriate engineering and work practice controls be implemented while handling the specimen.

While the specimen(s) is in transport, it may be classified as Biological Substance (Category B), or Infectious Substance (Category A).

## Ground Transportation

1. Category A and B specimens are regulated by the DOT.
2. Dedicated private or contracted carrier is defined as a motor vehicle used exclusively to transport biological substances or biological products.
3. While other medical or laboratory related materials may also be transported in this vehicle, its purpose is primarily for transport of specimens.

## Air Transportation

1. Charter, commercial and cargo aircraft are used for transportation of specimens to BBPL.
2. IATA regulations must be followed for all of the listed air transport options.
3. Regulations include procedures for dry ice, Category A versus Category B specimens, markings/labeling of shipments, and any documentation guidelines.

# Packing & Transport of Specimens using Courier

## IDENTIFYING SPECIMEN TYPE AND TEMPERATURE

To ensure optimum testing conditions for a specimen that is sent to BBPL, the client must determine two things:

- (1) The type of specimen to be sent; Category B (Biological Substance) or Category A (Infectious Substance), and
- (2) The temperature at which the specimen must be maintained during transit using instructions for individual tests listed in the BBPL Directory of Services at [www.bbpl.com](http://www.bbpl.com).

## DOT AND IATA REQUIREMENTS

When shipping specimens, it is essential that each specimen be packaged and shipped properly. Complying with the regulations set forth by the DOT and IATA will control or eliminate many health and financial liabilities, both criminal and civil. Other shipping regulations (IATA; CFR 29, 42, and 49; ICAO; and USPS) may also apply, depending on the transport service used.

The following rules apply for all specimens:

- The primary and secondary receptacles must be leakproof.
- There must be absorbent material placed between the primary receptacle and the secondary packaging sufficient to absorb the entire contents of all primary containers within the secondary package.
- The primary receptacle or the secondary packaging must be capable of withstanding, without leakage, an internal pressure differential of not less than 95 kPa.
- If multiple fragile primary receptacles are placed in a single secondary packaging, they must be either individually wrapped or separated to prevent contact between them.
- An itemized list of contents must be enclosed between the secondary packaging and the outer packaging.



BBPL shipping container



Packing list or test request forms fit into the outside sleeve.

# Packing & Transport of Specimens using Courier

## DOT AND IATA TRAINING REQUIREMENTS FOR SHIPPING INFECTIOUS SUBSTANCES (CATEGORY A)

When preparing and shipping infectious substances, be sure to package and ship each specimen properly. Complying with the regulations set forth by the DOT and IATA will control or eliminate many health and financial liabilities, both criminal and civil.

These regulations specify that anyone who ships or cause to be shipped any hazardous materials must have received training from a certified source within the last two years. A record of this training must be maintained during the term of employment and for one year following termination of employment. The training record must include the following:

- Individual's name
- Most recent training completion date
- Description, copy, or reference to training materials used to meet the training requirement
- Name and address of the organization that provided the training
- Copy of the certification issued when the individual was trained, indicating that a test has been completed satisfactorily

When a client ships his/her own specimens, the person packing the shipment is the client's designated employee and the client is the shipper.

It is important to note that reading the shipping instructions within this brochure is not sufficient to satisfy the requirements for certified training as set forth in DOT and IATA regulations. BBPL has provided this information for shipping via air transport not as training material but as a reference for our clients. Other similarly stringent regulations apply for those shipping via ground or mail service.



# Classification of Specimens

(Proper Shipping Categories are in BOLD type)

## 1. **Category B, Biological Substances (UN3373)**

UN3373: An infectious substance which does not meet the criteria for inclusion in Category A.\*

## 2. **Category A, Infectious Substances (UN2814)**

UN2814: An infectious substance, which is transported in a form that when exposure to it occurs is capable of causing permanent disability, life-threatening or fatal disease in otherwise healthy humans.

*\*Some substances in Category B may be included in Category A only if they are in culture form.*

Cultures (laboratory stocks) are the result of a process by which pathogens are amplified or propagate in order to generate high concentrations, thereby increasing the risk of infection when exposure to them occurs. This definition refers to cultures prepared for the intentional generation of pathogens and does not include cultures intended for biological and clinical purposes.

- If there is doubt whether or not a substance meets the criteria, it must be included in Category A.3.6.2.2.1.
- IATA; 55th Edition, Chapter 3-Classification

# Training

§172.701d-“A hazmat employer shall ensure that each of its hazmat employees is tested by appropriate means on the training subjects covered in §172.704.”

# Frequently Asked Questions

## 1. **Does hospital send-out staff need training if there is a courier packing the box?**

YES - §172.700 of the 49CFR states that Hazmat employers must train their staff if the staff is classifying/packaging specimens for transportation. The hospital, clinic, and doctor's office are considered the shipper of the package.

## 2. **Does the person placing specimens into a BBPL box for shipment need to be trained and certified?**

YES – Any persons handling specimens for transport must be trained and certified to handle medical specimens.

## 3. **What Category of Specimens requires Dangerous Goods Training?**

ALL – Staff must be trained if providing specimens (dangerous goods) for transportation. Many organizations offer training and certification for specimen handling.

## 4. **Where can lab staff/couriers receive training for Dangerous Goods Handling?**

Employers must provide training for their employees.



# What Does Your Shipment Contain?

- Materials that do not contain infectious substances or are unlikely to cause disease in humans
- Inactive or neutral pathogens
- Dried blood spots
- Environmental samples
- Samples/Specimens to be used for transplant or transfusion



- Materials that contain an infectious substance that is not in a form generally capable of causing permanent disability or life-threatening or fatal disease in otherwise healthy humans
- Substances transported for diagnostic or investigational purposes

## Category B (UN3373)



BIOLOGICAL SUBSTANCE  
CATEGORY B

- Infectious substances in a form capable of permanent disability or life-threatening or fatal disease in otherwise healthy humans
- Likely to contain Category A
- Tested for Category A
- Characteristics of Category A
- Carries health risk to carrier, personnel, still unknown

## Category A (UN2814)



Package as  
Biological Substance  
Category B (UN3373)

Package as  
Infectious Substance,  
Category A (UN2814)

IATA regulations require recurrent training every two years, unless there are regulation changes prior to that time. DOT regulations require all training records be held as long as the employee is retained and for 90 days thereafter.

# Packaging/Packing & Labeling Instructions

Packaging is preparing a specimen for shipment from one location to another. Packaging a specimen is the act of placing the specimen in the outer container it will travel in while in transport.

## PACKAGING ALL SPECIMENS

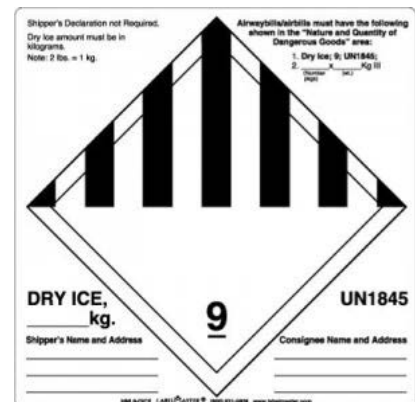
- Primary receptacle containing the specimen
- Secondary packaging such as a plastic Poly Seal bag with adequate absorbent material
- Outer packaging (corrugated box, fibreboard box, cooler, etc.) with biohazard symbol and appropriate labels
- Packaging sample in appropriate temperature for specimen transport

## Packing Instructions for Room Temp and Refrigerated

- Room temperature specimens should be packed in a separate compartment.

## Packing Instructions for Frozen Specimens

- The maximum allowable amount of dry ice in a shipment is 2.2kg, or 5 pounds.
- **USE NO LESS THAN 2.2KG of DRY ICE PER BOX.**
- Dry ice must completely surround the specimens before sealing the package.
- If there is not enough room for the full 2.2kg of dry ice, use an additional box for the overflow of specimens. This will require an additional 2.2kgs of dry ice.
- The shipment must be shipped with a dry ice sticker (Class 9).
- Southwest Airlines has their own dry ice label. Otherwise, use currently approved DOT/IATA Class 9 label. Must enter weight of dry ice in kilograms on label.



# Packing Instructions for Category B (UN3373), Biological Substances

## Category B shipments must be packed as follows:

- Leakproof primary receptacle. Category B primary receptacles must not exceed 500 ml.
- Leakproof secondary receptacle. A plastic, leakproof bag is appropriate as secondary packaging. A biohazard warning label should be present on the secondary packaging.
- Absorbent material must be placed in between the primary and secondary receptacles. This must be sufficient to absorb the entire contents of all primary receptacles in the secondary packaging.
- Primary and secondary receptacles must be capable of withstanding, without leakage, an internal pressure producing a pressure differential of not less than 95kPa (13.8psi) in the range of -40° to 130°F (-40° to 55°C).
- The maximum quantity per outer packaging for Category B specimens must not exceed 4 L.
- Place specimen transport bag in appropriate temperature compartment for courier pick up.

## Category B, Small Courier Bag



## Category B, Flight Box



## Category B, Large Courier Bags



# Packing Instructions for Category A (UN2814), Infectious Substance Affecting Humans

The most current general list is located on page 18. All individuals involved in the packing of Category A shipments must receive and have documentation of certified training in applicable regulations and also training in their facility's procedures.

## IMPORTANT!

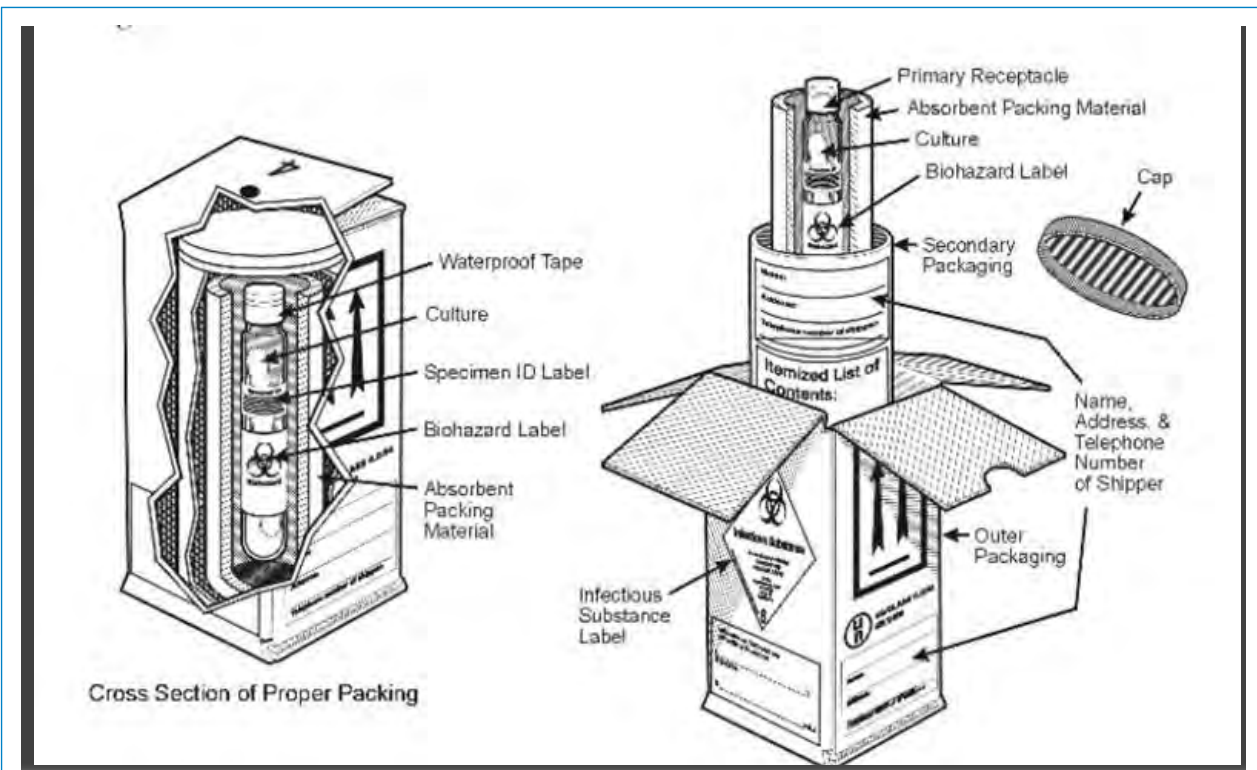
Primary receptacles for Category A specimens: Only screw-cap receptacles with a leakproof seal will be accepted and must be positively secured with tape, paraffin sealing tape, or a manufactured locking closure.

**PETRI DISHES DO NOT MEET THESE REGULATION REQUIREMENTS FOR TRANSPORTATION.**

An itemized list of contents must be enclosed between canister and the fibreboard box provided by BBPL. This packaging list is required for Category A shipments and is in addition to the requisition or manifests that are sent.

Directions on this Category A kit will be provided in the kit.

- Category A specimens CANNOT be transported in the same primary, secondary, or tertiary receptacle as any other category of specimen.
- Category A and Category B cannot be in the same box.
- BBPL does not permit shipping of Category A substances on commercial air carriers.



# **Packing Instructions for Category A (UN2814), Infectious Substance Affecting Humans (continued)**

## **Labeling**

Proper labeling of Category A specimens is essential. Significant fines can be levied, even for improper labeling of the shipping container. Some of the markings or labels may be preprinted directly onto the shipping container.

## **Shipper Marking**

Indicating the name and address of the shipper (the shipper is the facility sending the package).

## **Consignee Marking**

Indicating the name and the address of the intended receiver of the package.

## **Responsible Party Marking**

Indicating the name and phone number of a person “responsible for the shipment” on the outside of package.

## **Class 6 Infectious Substance Label**

Indicating shipment contains Category A Infectious Substance Affecting Humans.

## **UN Specific Label**

Indicating the UN2814 substance and total weight of the specimens inside the package.

## **Class 9 Miscellaneous Dangerous Label**

Only for shipments containing dry ice. The quantity must be included on this label as (\_\_\_kg). (No more than 2.2kg of dry ice is allowed per shipping container.)

## **Package Orientation Markings**

Double up-arrows pointing upwards must be on opposing sides of the box not containing labels.

## **Final Packaging**

Place the pre-packed tape strip across the box only in one direction. If dry ice is used, care should be taken to allow enough space for carbon dioxide gas to escape as dry ice dissipates.

# Transport in Petri Dishes

**PURPOSE** The purpose of this policy is to clarify BBPL's position related to appropriate methods of shipping Petri Dishes, including restrictions based on hazard class and mode of transportation.

**SCOPE** BBPL employees will follow the regulations for specimens which may be shipped from a BBPL site. BBPL will also work with clients and partners to assist them in complying with these regulations when shipping their testing into a BBPL site. Shipping regulations depend on the transport service used and include those regulations set forth by the United States Department of Transportation (DOT) and the International Air Transport Association (IATA) and any other appropriate regulatory agencies.

## **POLICY** Rules for Shipping Petri Dishes

1. **Category A (620) specimens can never be shipped in a Petri Dish**, either via Ground or Air, as they do not meet the minimum requirements of Federal Regulations. This is based on 49 CFR (Code of Federal Regulations) Part 173.196 "Category A infectious substances."

The packaging requirements for shipping Category A are as follows:

- (1) A leakproof primary receptacle. This may be an agar slant but not a petri dish.
- (2) A leakproof secondary packaging.
- (3) A rigid outer packaging of adequate strength for its capacity and intended use.
- (4) Absorbent included for liquid infectious substances.

**Note:** The only acceptable container for Category A organism growth transport is a slant.

2. Category B (UN3373) specimens can be shipped in a Petri Dish, only via ground, but not via air (only a slant can be the primary container for air shipments of cultures). When shipping Category B (UN3373) via ground in a Petri Dish, the specimen must also be:
  - (1) Taped or parafilmed together and placed in a ziplock/leakproof plastic baggie (as per PHMSA US DOT–Pipeline and Hazardous Materials Safety Administration Interpretations #08-0158 and #08-0276). Once placed in the baggie, the baggie becomes the primary receptacle.
  - (2) Absorbent material added to the baggie.
  - (3) Primary packaging placed in a BBPL clear-plastic specimen bag. Ensure that the zip seal is fully closed.
  - (4) The specimen transport bag and contents with appropriate paperwork are placed in a BBPL courier bag for transport.

# Instructions for Completing the Shipper's Declaration

(See example on page 17)

## 1 Shipper

Enter in the Name, Address, and Phone number of your facility along with the name of the person responsible for the shipment. Names should not be abbreviated.

## 2 Consignee

Enter in the Name and Address of the facility to which you are shipping the specimens as well as the person responsible at that facility.

## 3 Air Waybill Number

Enter the waybill number where indicated.

## 4 Transport Details

Delete the inappropriate information by using several X's to cross out the section. Under almost all circumstances, you will cross out the section "CARGO AIRCRAFT ONLY." This will allow either passenger or cargo aircraft to ship your samples.

## 5 Airport of Departure

Enter in the City and State for the airport from which the shipment is leaving. Do not use the three letter airport code.

## 6 Airport of Destination

Enter in the City and State for the airport for which the shipment is intended. Do not use the three letter airport code.

## 7 Shipment Type

Delete the inappropriate information by using several X's to cross out the section. All Category A (UN2814) shipments from BBPL and its affiliates will be non-radioactive, so the shipper must cross out the RADIOACTIVE box.

### ***The "Nature and Quantity of Dangerous Goods" section of the Declaration of Dangerous Goods has several components:***

## 8 Proper Shipping Name

The following designations must be used, depending upon the nature of the samples you are shipping:

- A. Infectious Substance, Affecting Humans (Suspected Category A infectious substance):  
These words must be used exactly. Note: We no longer are required to enter the exact name of the suspected organism if we're not sure.  
As per IATA exemption A140 the term "Suspected Category A infectious substance" can be entered.  
If the suspicious substance is known, then it can be entered as "Suspected" with the name of the substance and the A140 is then removed.
- B. Carbon Dioxide, Solid: When shipping with dry ice, it must be listed as a dangerous good. When not shipping with dry ice, delete this line off of the form.

## 9 Class or Division

There are two classes that apply to the shipments you will be making:

- A. 6.2 Always used when shipping Infectious Substances.
- B. 9 Used only when shipping with dry ice. If no dry ice is being shipped, delete this line.

## 10 UN or ID Number

There are two options:

- A. UN 2814 Always used to identify Infectious Substance affecting humans, (liquid).
- B. UN 1845 Used only to identify shipments containing carbon dioxide, solid (dry ice), if dry ice is being shipped.

## 11 Packing Group

Leave this section BLANK for the Infectious Substance line, as well as the dry ice line (if dry ice is being shipped).

## 12 Subsidiary Risk

Leave this section BLANK for all shipments.

## 13 Quantity and Type of Packing

Enter in the following information:

- A. For Infectious Substances, enter in the number of milliliters of sample per primary receptacle and the number of receptacles per box (not to exceed 50 ml for commercial). For example, if you are shipping a total of 10 ml of sample, and the samples are in two primary receptacles, then you enter "20 ml".
- B. When shipping with **dry ice**, enter in the number of kg of dry ice contained in the shipment, not to exceed 2.2 kg, (5 lbs).

## 14 Packing Instruction

Enter "620" for Infectious Substances. Enter "954" for shipments containing dry ice.

## 15 Proper Shipping Name

When shipping Category A and the Proper Shipping Name is known, enter the proper name in the parenthesis under "Infectious Substance affecting humans" in the Proper Shipping Name column.

If the Proper Shipping Name is unknown, enter "Suspected Category A infectious substance" in the parenthesis; also enter "A140" in the Authorization column for the IATA exemption, which allows the "Suspected Category A infectious substance" statement.

## 16 Shipping Multiple Line Items

When shipping multiple line items, under all items in the Quantity and Type of Packaging column enter "All packed in one fibreboard box" under all items.

If there is only one item, then remove the word "All" so that it states: "Packed in one fibreboard box."

## 17 Additional Handling Information

The following information should be on the form: 24-hour phone number of person responsible.

## 18 Declaration Statement

The individual preparing the DDG must enter their name and title, the place and date of preparation of the shipment, and then sign the DDG.

## 19 Multiple Pages of the Form

If there are multiple pages of the form that are being prepared, as in cases where a large number of samples are being shipped, enter the number of pages as indicated at the top of the form.

An example of the format used would be "Page 1 of 3 pages," "Page 2 of 3 pages," etc.

When complete, retain one signed copy of the Form and submit three copies with the completed shipment.



**SHIPPER'S DECLARATION FOR DANGEROUS GOODS**

(Provide at least three copies to the airline.)

<p><b>1 Shipper</b> Name of Shipper Location Street Address City, State, Zip Code Phone Number Person Responsible</p>	<p>Air Waybill No. <u>Enter Number Here</u> <b>3</b></p> <p>Page <u>1</u> of <u>1</u> Pages <b>19</b></p> <p>Shipper's Reference Number <i>(optional)</i></p>
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<p><b>2 Consignee</b> Boyce &amp; Bynum Pathology Laboratories 200 Portland Street Columbia, MO 65201 Client Services: 1-800-786-4602 Attn: Processing</p>	<p>This shipper's declaration was prepared using a FedEx Express template. It must be used <b>ONLY</b> for: * Class 7 radioactive shipments * Shipments using an 023 air waybill (IP1, IXF or ATA service) * Shipments originating from a non-US location</p>
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Two completed and signed copies of this Declaration must be handed to the operator

**WARNING**

Failure to comply with all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties.

**TRANSPORT DETAILS**

<p>This shipment is within the limitations prescribed for: <b>4</b> <i>(delete non applicable)</i></p> <table border="1"> <tr> <td>PASSENGER AND CARGO AIRCRAFT</td> <td>CARGO AIRCRAFT ONLY</td> </tr> </table>	PASSENGER AND CARGO AIRCRAFT	CARGO AIRCRAFT ONLY	<p>Airport of Departure <b>5</b> <u>Enter City and State</u></p>
PASSENGER AND CARGO AIRCRAFT	CARGO AIRCRAFT ONLY		
<p>Airport of Destination: <u>Enter City and State</u> <b>6</b></p>			

Shipment type: *(delete non-applicable)*

NON-RADIOACTIVE	<b>RADIOACTIVE</b> <b>7</b>
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**NATURE AND QUANTITY OF DANGEROUS GOODS**

Dangerous Goods Identification						
UN or ID No.	Proper Shipping Name	Class or Division (Subsidiary Risk)	Pack-ing Group	Quantity and type of packaging	Packing Inst.	Authorization
<b>10a</b> UN 2814	Infectious Substance, affecting humans (Suspected Category A infectious substance) <b>8a</b>	6.2 <b>9a</b>	<b>11</b>	<u>Enter number ml</u> <b>13a</b>	620 <b>14</b>	A140 <b>15</b>
<b>10b</b> UN 1845	Dry Ice <b>8b</b>	9 <b>9b</b>	<b>16</b>	2.2 kgs <b>13b</b> All packed in one fibreboard box	954	

**Additional Handling Information**

**17** Emergency contact 24-hr number: Shipper Person Responsible Phone Number

<p>I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable International and National Governmental Regulations. I declare that all of the applicable air transport requirements have been met.</p>	<p>Name/Title of Signatory <u>Your Name and Title</u> <b>18</b></p> <p>Place and Date <u>Your City, State, Month/Day/20XX</u> <b>18</b></p> <p>Signature <i>(see warning above)</i></p>
<p>Emergency Telephone Number</p>	

FOR RADIOACTIVE MATERIAL SHIPMENT ACCEPTABLE FOR PASSENGER AIRCRAFT, THE SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN OR INCIDENT TO RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT. ADR EUROPEAN TRANSPORT STATEMENT: CARRIAGE IN ACCORDANCE WITH 1.1.4.2.1

# Infectious Substances - Category A

**Examples included in any form, unless otherwise indicated.**

## UN 2814 Infectious Substances Affecting Humans

*Bacillus anthracis* (cultures only)  
*Brucella abortus* (cultures only)  
*Brucella melitensis* (cultures only)  
*Brucella suis* (cultures only)  
*Burkholderia mallei* - *Pseudomonas mallei* – Glanders (cultures only)  
*Burkholderia pseudomallei* – *Pseudomonas pseudomallei* (cultures only)  
*Chlamydia psittaci* - avian strains (cultures only) *Clostridium botulinum* (cultures only)  
*Coccidioides immitis* (cultures only)  
*Coxiella burnetii* (cultures only)  
Crimean-Congo hemorrhagic fever virus  
Dengue virus (cultures only)  
Eastern equine encephalitis virus (cultures only) *Escherichia coli*, verotoxigenic (cultures only)  
Ebola virus  
Flexal virus  
*Francisella tularensis* (cultures only)  
Guanarito virus  
Hantaan virus  
Hantaviruses causing hemorrhagic fever with renal syndrome  
Hendra virus  
Hepatitis B virus (cultures only)  
Herpes B virus (cultures only)  
Human immunodeficiency virus (cultures only) Highly pathogenic avian influenza virus (cultures only) Japanese Encephalitis virus (cultures only)  
Junin virus  
Kyasanur Forest disease virus  
Lassa virus  
Machupo virus  
Marburg virus  
Monkeypox virus  
*Mycobacterium tuberculosis* (cultures only)  
Nipah virus  
Omsk hemorrhagic fever virus  
Poliovirus (cultures only)  
Rabies virus (cultures only)  
*Rickettsia prowazekii* (cultures only)  
*Rickettsia rickettsii* (cultures only)  
Rift Valley fever virus (cultures only)  
Russian spring-summer encephalitis virus (cultures only) Sabia virus  
*Shigella dysenteriae* type 1 (cultures only)  
Tick-borne encephalitis virus (cultures only)  
Variola virus  
Venezuelan equine encephalitis virus (cultures only) West Nile virus (cultures only)  
Yellow fever virus (cultures only)  
*Yersinia pestis* (cultures only)

## UN 2900 Infectious Substances Affecting Animals

African swine fever virus (cultures only)  
Avian paramyxovirus Type 1 – Velogenic Newcastle disease virus (cultures only)  
Classical swine fever virus (cultures only)  
Foot and mouth disease virus (cultures only)  
Lumpy skin disease virus (cultures only) *Mycoplasma mycoides* - Contagious bovine pleuropneumonia (cultures only)  
Peste des petits ruminants virus (cultures only) Rinderpest virus (cultures only)  
Sheep-pox virus (cultures only)  
Goatpox virus (cultures only)  
Swine vesicular disease virus (cultures only) Vesicular stomatitis virus (cultures only)

**NOTE 1:** The following list is not exhaustive. Infectious substances, including those containing new or emerging pathogens, which do not appear in the following list but which meet the same criteria must not be transported as a diagnostic specimen. In addition, if there is doubt as to whether or not a pathogen falls within this category it must not be transported as a diagnostic specimen.

**NOTE 2:** In this table, the microorganisms indicated in italics are bacteria, mycoplasmas, rickettsiae, or fungi.

**NOTE 3:** Cultures are the result of a process by which pathogens are intentionally propagated. This definition does not include human or animal patient samples.

**NOTE 4:** If a health authority list is available that shows other pathogens regarded as Risk Group 4 this should also be taken into account and the substances should not be transported as diagnostic specimens.

Regulating authorities have provided in-depth regulations for appropriate classification, packaging and shipping for specimens by air and by ground. In addition to shipping, medical test sites are required to maintain policies and procedures to provide appropriate instructions for specimen collection, handling, preservation, and transportation.

**These authorities are:**

- Department of Transportation (DOT)
- International Civil Aviation Organization (ICAO)
- Centers for Disease Control (CDC)
- World Health Organization (WHO)
- International Air Transportation Association (IATA)
- Clinical Laboratory Improvement Amendments (CLIA)

**Resources used for this brochure:**

Department of Transportation: Research & Special Programs Administration: 49 CFR Parts 100-185

Harmonization With the United Nations Recommendations, International Maritime Goals Code, and International Civil Aviation Organization's Technical Instructions

IATA Dangerous Goods Regulations

ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air



Packaging & Shipping Laboratory Specimens Guide  
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